4.   The method of claim 1 wherein step (c) further comprises obtaining the control voltage by integrating a voltage across a current sensing resistor.

5.   The method of claim 1 wherein step (a) further comprises the steps of:

(a)(i)   enabling the calibrating of the predetermined voltage threshold.

6. (Amended) The method of claim 5, wherein step (a)(i) further comprises the steps of:

(a)(ii) applying a signal from a digital-to-analog converter (DAC) to the input of a comparator;

(a)(iii) applying a finite specific reference signal to simulate the monitoring of one of the current and voltage applied to the spindle motor; and

(a)(iv) adjusting the signal from the DAC to compensate for offsets of the circuitry.

7. (Amended) The method of claim 1 further comprising the step of:

(e)   waiting a fixed period of time;

(f)   reapplying power to the motor; and

(g)   repeating steps (b) – (g).

8. (Amended)   A method for controlling the current drawn from a power supply in a computer system by a spindle motor, comprising the step of decoupling the power supply from the spindle motor if a control voltage exceeds a predetermined voltage threshold.

13. (Amended) A data storage device, comprising:

at least one spindle motor;

a power supply electrically coupled to the spindle motor; and

a spindle motor controller, wherein the spindle motor controller measures and, if a threshold value is at least met, decouples power to the spindle motor.

14.   The data storage device of claim 13 wherein the spindle motor controller further comprises:

     a driver control function programmed into the motor controller which disables a spindle motor driver for a fixed period of time.

15. (Amended) The data storage device of claim 13 wherein the spindle motor controller decouples power when a control voltage, proportional to at least one of a motor current and motor voltage, is at least equal to a threshold voltage.

16.   The data storage device of claim 14 wherein the driver control function is enabled when a signal proportional to a current applied to the spindle motor exceeds a predetermined threshold.

17. (Amended) The data storage device of claim 16 wherein the power supply is coupled to the spindle motor for at least one of a start-up sequence and a run sequence.